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# **TECHNOCRACY**

## **SECOND SERIES**

### **PART I.**

**Magic Money, Money Magic and the Magician;  
The Payers and—the Fading Smile.**

### **PART II.**

**The Method of Solving Problems Generally  
And Our Social Problem in Particular.**

### **PART III.**

**A Working Method for a Workable Understanding  
Of the Social Problem and of a Workable Reconstruction.**

### **PART IV.**

**Labor, Skill, Tally, Organization and Their Functions:  
Production, Distribution, Direction.**

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## **Social Universals**

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**By William Henry Smyth**

CAN ANY "LIFELESS THING PRODUCE  
AN EVERLASTING AND INEXHAUSTIBLE  
SUPPLY OF GOODS"?



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# Technocracy

## Second Series

### PART I.

## Magic Money, Money Magic and the Magician; The Payers and — the Fading Smile.

By William Henry Smyth

**Note:** The First Series of Technocracy outlines a program of social reconstruction under the guidance of nationally organized Science. The Second Series develops, in simple language and with common examples, the working method, the ways and means proposed by the author for attaining such social order and contentment, and thus destroying the peril of revolution.

In Part I Mr. Smyth sets forth the antagonism, in our society, of ancestral superstition, obvious in economics, notably effective in finance, as against the modern point of view, enforced by Science and our every-day-life familiarity with and dependence on machines and machine processes—with the resulting social tension accumulating to the breaking strain.—Editor.

#### Mechanics and Economics.

Mechanics deals with things—things governed by unchangeable and unchanging Laws of Nature. The basic facts and principles of Mechanic Arts have passed out of the region of doubt or controversy—they are firmly founded upon the proofs of scientific experiment.

Economics, on the contrary, is concerned with easily changeable (man-made) rules and regulations—community usages intended to facilitate social activities. Hardly any two authorities are agreed upon the basic “facts” of economics, nor are these “facts” determinable by the tests of experimental science.

#### Clarity and Obscurity.

Mechanics and machines, to Mr. Average Man, are quite within his comprehension and understandable to ordinary intelligence.

“Economics” and “Finance,” to Mr. Average Man, seem realms of profound impenetrable mystery governed by occult forces.

#### Important Difference.

The difference in our mental attitude towards these two departments

of human effort, to which I have directed attention, serves in part at least to explain why it is that we would unquestioningly accept (as being brilliantly reasonable) a proposal by a “Financier,” that with spontaneous scorn we would reject (as being obviously crazy), if suggested by a mechanic.

It is so easy to overlook the customary that this common happening is not commonly noted; nonetheless it is a fact and social factor of more than ordinary importance, for it throws light on social problems, upon the solution of which may depend our escape, in the United States, from the condition of Europe, particularly that of Russia.

#### “Future Savings.”

Obviously (to commonsense), if workers worked in future materials or if soldiers shot at each other with future bullets, or if both toilers and fighters fed on future food, only visionary products and dream carnage could result.

So, should a Mechanic propose to us an “invention” intended to enable workers, feeders, and fighters to fight today, feed today, work today, and

jag today on next year's or next century's materials, food, booze, and energy; we should tap our foreheads significantly, and murmur—"Wheels!"

Let, however, Mr. Financier make the same proposition as Mr. (Nuttie) Mechanic, and we joyfully shout—"Hurrah! for the Future!"; and hand our "Wizard of Finance" a thousand billion dollar blanket mortgage "bond" on the world, (i. e., "National Debts," and intra-national "credit" instruments) paying Financier 5% interest for ever—to "finance the enterprise."

When a dapper and dextrous gentleman, in evening costume—with convincing evidence of "no deception"—produces ribbons and rabbits, pigeons and poultry, guinea-pigs and goldfish, from a magic hat, we—undeceived—smilingly applaud his skill.

But, let Mr. Financier's learned co-adjutor Professor Economicus solemnly and lengthily discourse learnedly regarding steaks and steamships; sugar, shoes and psychics; copper and coal; jags, joys and jinjams; cotton, coaloil, and cucumbers; cabbages and kings, dollars and diamonds, quantum and quahogs—all that heart of man desires—spontaneously generated out of a magic hat of "future savings" (i. e., mysteriously conventionalized "credit"), we listen in respectful amaze, and hopefully hand our petty surplus present products to Mr. Financier—as a small consideration for the great and mysterious future benefits to be conferred by his wondrous creative art!

Such "finance" and "economic" happenings as these are so common, usual, everyday experiences that they pass smoothly by without any awakening shock to our intelligence; thus they escape critical attention. Nonetheless from these casual unnoted causes flow our social unrest and world-conflict.

### **Magic Money.**

(a) "This war must be financed, not out of past savings but out of future savings. Future savings are for the moment not available and some other device must therefore be brought into play. That device is bank credit, and this loan and subsequent loans will in

the main be floated through an expansion of bank credit."

### **Money Magic.**

(b) "And, finally, it flows in to the capitalist without ever exhausting the capital from which it comes, and therefore without any necessary limit to its continuance. It is, if one may use such an expression about mundane things, capable of an everlasting life. Thus it is that the phenomenon of interest as a whole presents the remarkable picture of a lifeless thing producing an everlasting and inexhaustible supply of goods."

### **"Economics" vs. Horsensense.**

Quotation (a) is the considered pronouncement of a foremost banker and a national power in the "World of Finance."

Quotation (b) is the deliberate utterance of a leading if not the leading authority in the "Realm of Economics."

Both statements, with practical unanimity, are accepted as expressions of Twentieth Century economic intelligence.

If quotation (a) is not in essence precisely the proposal of our crazy "inventor" and if (b) does not in effect describe the performance of the prestidigitator, and if both are not definite and serious expressions of (real even if unconscious) belief in magic, then words have no meaning and rational thought is a futile farce.

Should either proposition (a or b) come (in precisely the same form) from a mechanic, it would require no stretch of the imagination to foretell the verdict of a lunacy commission regarding his fate.

### **Modern Diabolism.**

It is noteworthy that our mental attitude toward the Mechanic is practical, matter-of-fact, modern; toward the Financier it is "natural," subconscious, and old as the human race.

In this first quarter of the Twentieth Century, the overwhelming majority still persist in our ages-old belief in supernatural outcomes—something from nothing. Indeed, it is probable that not one of us is quite liberated from the ancient thrall



of superstition in some of its myriad aspects. So deeply ingrained in the fiber of human thought is the idea of magic causation, that this is still the "natural" explanation of any strange happening.

Our common speech, our vocations, relaxations, institutions, (secular and sacred), are full to overflowing with evidence to the persistence of practically universal belief in sorcery, demonology, witchcraft, black-art and magic.

We legalize "chance" for the distribution of wealth, for the "ownership" of property, and for success in life.

We commercialize and institutionalize luck, gambling, speculation—socialize worship of the "fickle goddess."

We pray "God" to pet and coddle us, and we bribe "Him" to clout without mercy those of whom we disapprove.

We supplicate rain for our little alfalfa patch—regardless of our neighbor's blossoming orchard.

We "bless" our friends politely, and "curse" our enemies with profuse elaboration.

We have sanctified days, places, and things, not forgetting a fair-sized remnant of super-sanctified people.

We habitually apply the term "wizard" to every man who produces results that arouse our wonder—Wizard of Invention, Wizard of Art, Wizard of Finance.

We constantly talk of the Magic of invention, the Magic of art, the Magic of money.

Still we ignore these facts and pretend that the modern use of hoary old witchcraft words is metaphorical, and that our continued use of Black Art and White Magic customs does not imply belief in Diabolism and necromancy as in the past.

But association of ideas, race history, nursery impressions, and community heritage are all too strong for the strongest of us, so the best we attain is verbal and vociferous denial thinly and shamefacedly masking conscious, subconscious, and unconscious belief in magic.

### Two Ways of Thinking.

Add now the new factors, Modern Science and Printing,—with the concomitant spread of scientific thinking—which knows not, repudiates, and wars with mystery, occultism, magic—and we have the perfectly natural results which we see all around us: disagreements, disputes, strikes, lock-outs, riots, I. W. W.-ism, Bolshevism, revolutions, rebellions, World War; results the final outcome of which—depending upon general human intelligence—will make for unprecedented social progress or for anarchy and the downfall of present civilization.

Mechanics, Modern Science and scientific mode of thinking practically began with the Steam Engine and modern machines of precision.

Economics is coeval with the Human Race.

So it has come about that each one of us has two separate sets of ideas, two distinct ways of thinking—the Ancient and the Modern.

### Truth Resented.

Even so, a statement that our (more or less) self-consistent "Financial System" is to any serious extent constructed out of unscientific fancies and rests upon nothing more solid than ancient superstition, is a shock to vanity, as an insult to our intelligence: an insult directed not at the ignorant among us or at the thoughtless ordinary citizen, but, at our leaders and our teachers, and at the "brilliant intellects" that control the world's activities—the Premiers of Governments, the Kings of Commerce, the Emperors of Finance.

Nonetheless, I believe the accusation to be substantially true.

### For a Consideration.

Under our modern business usages and economic customs, all social activities must be "financed"; every human purpose from "winning souls to God" to building a toboggan slide hellward; from constructing a "little red schoolhouse" to destroying an empire; from borning to burying, every human enterprise must (as a matter of course), be "financed"—for a consideration.

In brief, the modern fashion in

smoothly separating Doer and Maker from the desirable results of his doing and making, is by "financiering the enterprise"—for a consideration.

For a thousand years prior to our "Finance" dispensation, human activities and enterprises had to be (similarly) sanctioned by "the Church"—for a consideration.

For a thousand years or more, prior to "the Church," enterprises had to be similarly sanctioned by "the Oracle"—for a consideration.

Fashions change, but human nature is more unchanging than the granite cliffs; and the art of painlessly parting producer from his products is as old as civilization and—Magic still is, as it always has been, the painless parter's most effective "device."

Indeed, the art of separating the worker from the results of his industry is far older than the human race: animals swipe their neighbors' hoards, bears steal honey, and bee swarms rob each other.

Aeons of time and ages of human experience have not resulted in any essential change in purpose and outcome, but only in rendering the process more workmanlike and less messy.

### Animism in "Economics."

A common feature in systems of magic is animism—attributing to inanimate objects the functions of life, assuming things to possess will, purpose, and power.

It is significant (though quite in keeping) that "Economists" and "Financiers" have this characteristic attitude of mind towards, and employ animistic forms of expression in writing and talking about "Money" and "Capital."

Whether this is due to unconscious belief in magic or is mere metaphor, the result, in either case, is befogging confusion of thought.

When the President of a great banking corporation, in a serious public discussion on "War Taxation," for example, says:

"Capital has a long memory . . .";

"Capital is proverbially timid . . .";

". . . treason for capital and capitalists . . .";

" . . . capital and men of enterprise . . .";

" . . . capital and capitalists of today . . .";

he seems to be expressing nonsensical animism and belief in magic—magic no less crude and thinking no less naive and childlike than that of the average man-on-the-street in his oft-stated conviction that "Money makes money," that "Dimes breed dollars," and suchlike popular aphorisms.

Hazy verbal expression usually implies foggy thinking, and this is as true of the "highbrow" as of the rest of us. When language fails to clarify thought it is probable that the thoughts of its user need clarifying.

### Interpretation.

Let us then (by means of a little paraphrastic amplification), endeavor to make clear just what our banker friend and adviser is really implying in these truly ear-catching phrases, which sound as though they really ought to mean something:

Capital (i. e. a spade, or a plow, or a crowbar, is more favorably endowed than many of the human users thereof—it) has a long memory . . .

Capital (i. e. a railroad, or a steamship, or a skyscraper is scared to be out alone after dark—it) is proverbially timid . . .

(It is) treason for capital (i. e. boilers and bullion, timber-land and mineral deposits, wharves and warehouses to preach and practice the forcible overthrow of our government) and (likewise also for) capitalists (when either capital or capitalist is caught in the act, he, she or it should be shot, or at least fed on low diet in close confinement until repentant) . . .

Capital and capitalists of today, (on account of their like human attributes, should be treated with all due and tender consideration of their like human frailties and timid self-sacrificing characteristics) . . .

I wonder if this is precisely what friend Banker intended to imply, and us to understand him to mean.

### "Economic" Abracadabra.

The literature of Wizardry—and it is amazingly voluminous—is charac-

terized, both in word and in thought, by mind-racking unintelligible obscurity. It is curiously significant that the books devoted to modern Economics and Finance are likewise couched in obscure jargon—abracadabra—not only meaningless to ordinary intelligence, but apparently also to the adepts in the alleged arts.

Here are a few samples culled at random from a page in an article on "The Nature and Mechanism (!) of Credit," appearing in the Quarterly Journal of Economics:

"... subjective value objectivised ...";

"... force of value ...";

"... psychic force ...";

"... generic purchasing power ...";

"... present good for future good ...";

"... present value of future industrial worth ...";

and the list might be almost indefinitely extended.

Truly, I do not lack courage, but I throw up my hands—confronted by these weirdly mystic phrases!

To me they seem as essentially meaningless as the twaddle of the March Hare and the Hatter that so puzzled poor Alice—in Wonderland. Subjected to mere commonsense analysis not one of these mysteriously cabalistic phrases seems to have any more meaning, or to have any more relation to actual things in a work-a-day world of Science and Mechanics, than the amazingly similar jargon of Wizardry.

### Kilkenny Cats.

Practically every "Economist" writer invents his own vocabulary, and contradicts the statements of every other; they ridicule each other's reasoning; and seemingly each denies the validity of all economic axioms but his own—they fight like Kilkenny Cats.

A hurricane of verbalization has yowled and a flood of billingsgate has raged in this tempestuously wordy conflict of economic mysticism. Bankers flatly contradict Bankers; and Economists arrive at diametrically opposite conclusions—from the same "facts."

In no other department of human thought is there so much discord and confusion as in the "Science of Economics."

But . . . ! the Financier—gets there just the same.

### Fact and Fancy.

It is practically certain that none of us knows when or to what extent superstition, ignorant mysticism and animistic fallacies color and vitiate his otherwise rational thinking. It should not surprise us therefore, to find whole areas of activities still obsessed with this primitive mode of thought, nor that the actors therein are unconscious of their mental state.

Would it not be the greatest miracle of all were it otherwise?

Thus it is in high degree probable that old fallacies and superstitions still infest and ramify (unsuspected) those activities which deal with life in its more than ordinary complex aspects—religion, philosophy, government, finance.

These considerations (even without taking into account the ever-present factor of instinctive self-interest) suffice to make probability verge on certainty, that all these departments of human activity involve an inextricable mingling of fact and fancy—science and superstition.

### War.

Magic and Science—"Economics" and Mechanics—no contrast could be greater, no antithesis more complete; and between magic and science there must always be war.

Just as the World War—with all its variety of aspects and complexities of motives—expresses the inherent conflict between mutually exclusive and antagonistic social systems—ancient Autocracy and modern Democracy—so the world-wide social strife, industrial unrest, I. W. W.-ism, Bolshevism and other disruptive massisms, express, in last analysis the still more profound and equally unescapable conflict between ancient Superstition and modern Science.

### Mumbo Jumbo.

One of the commonest of human errors is that of mentally putting the cart before the horse—mistaking the



effect for the cause and vice versa. We all reason more or less childishly, impressed by the obvious.

In our childhood's games, custom (hoary with age) prescribes concurrent forms of senseless words and irrelevant acts, words and acts to which we ascribe such causative effect in the outcome that, to our childish minds, the game would be impossible without their magic.

So, too, it is much the same with us, as grownups.

In our social activities, custom (hoary with age and saturated with ancient superstitions) prescribes the mumbo jumbo we now call "financing the enterprise." And to our obsessed minds this voodoo becomes an all-important factor of such causative effect that without its potent magic it would be unsafe, if not impossible, to build a schoolhouse or wage a war.

#### **Pedigree.**

We see with our eyes the obvious fact that "financing" precedes and accompanies all undertakings and enterprises; we see with our eyes that doings, and makings, and enterprises grow apace and increase most marvelously, so—"naturally"—we ascribe to the "Financier" a large measure of effect in the outcome.

And the source of the financier's power to do these "miracles" and work these wonders being mysterious and occult, we "naturally" concede him a large share of the proceeds, and we (equally naturally) accord to our modern Wizard (of "Finance") that respectful awe which in all past times we have been accustomed to render to his forebears and predecessors in magic—the Medicine Man, the Witch Doctor, the Soothsayer, the Oracle, the Astrologer, the Magician, the Ecclesiastic.

Custom and usage is merely continuing its normal course in those two realms of activity now called Finance, and Productive Industry—Capital and Labor.

#### **D-e-b-t Spells Slavery.**

Enterprises (whether constructive or destructive, whether productive or unproductive, whether of peace or of war), when "financed," become in-

debted to the "Financier" in proportion to their magnitude; hence, the harder the worker works, the more industrious and enterprising the Worker Community, the faster and greater grows the Community indebtedness—a truly quaint, queer, curious and mysterious system of "economics"!

And the more closely it is examined the more quaintly mysterious it seems.

Mystery is and always has been the "device" of the cunning to despoil and enslave the simple; and no fact of large social significance is today more glaringly apparent than the general and mysterious drift of desirable things out of the hands of those who make them into the control of others.

Equally clear is it that the motor "device" in this drift, taken by-and-large, is that mysterious process we call "financing the enterprise"; and by the same token its most efficient instrumentality is magic money and money magic.

It is not necessary to assume conscious intent on the part of the "Financier" to enslave the "Worker Masses", still, in a practical world it is the practical outcome not the intent that is of practical importance; and in the orthography of modern economics "slavery" is spelled with only four letters—D-E-B-T.

#### **The Magic Hat.**

As—"economically" (!)—debt implies interest "which flows to the capitalist without ever exhausting the capital from which it comes and therefore without any necessary limit to its continuance, it is . . . capable of an everlasting life . . . a lifeless thing producing an everlasting and inexhaustible supply of goods"—steaks and steamships, welsh-rabbits and railroads, women and wine, dinners and diamonds, farms and factories; parks, palaces, pleasures, power—leisure and luxury, and all that lustful heart of man desires, all flowing in an everlasting, self-creating stream, not out of but into the magic hat—of the smiling financial prestidigitator.

But . . . ! the responsive smile

is ominously fading from the faces of the dazed payers of the performance, gazing in goggle-eyed perplexity at this quaint inversion of the familiar old magic-hat trick.

### Who? and What?

Who are they from whose faces the smile is so ominously fading?

What does the fading of the smile mean?

What does it portend?

They—are “the people.”

Of them I have written heretofore: “They do not think (constructively) . . . they feel—feel hunger, feel passion—they feel with all the vital energy of the race. Thus when social conditions become unbearable or threaten their vital function (reproduction), they reflex with unrestrained ferocity. . . .”

That is what it means—the fading of the smile.

What it portends is—Revolution.

### Question!

Is that—even as only a possibility

—a worthwhile social outcome, considering our stupendous National opportunity?

Is our present social condition one to which we can justly point with National pride?

Is our present social condition worthy of National self-praise or of self-condemnation when we think of our century of nationally unhampered freedom and consider our vast continental area of the most fertile, the most resourceful, and most favorably situated land and—the most intelligent mass of human kind on earth, on the job?

Is our present social condition a goal for which an intelligent healthy-minded Nation would deliberately strive?

Is our present social condition the Objective for which we—as a Nation—have deliberately striven during our National life?

What is—now—our National Objective?

Fernwald, Berkeley, California.  
November 5, 1920.

ANIMALS REPRODUCE THEIR KIND:  
CAN “MONEY MAKE MONEY”?

# Technocracy

## Second Series

### PART II.

## The Method of Solving Problems Generally And Our Social Problem in Particular.

**By William Henry Smyth**

**Note:** Part II of Technocracy—Second Series makes easily and clearly understandable a method of solving problems by disregarding details (accidentals) and focusing on principles (essentials), and the peculiar applicability of this method to the social problems.

In so applying it, it is shown that social forces and (human) materials are nature-given—unchangeable—and act in obedience to laws of nature (instinctive urges, etc.), but by the same method by which the mechanic utilizes “destructive” natural forces to subserve his human purposes, attains his ends, and prevents disaster, we may (and not otherwise) avoid impending social calamity—forestall revolution.

#### **Freedom of Choice.**

Nations, like individuals, have freedom of choice to do well or ill—to act wisely or otherwise.

Nations, like their human elements, are subject to growth, to degeneration, to catastrophe. They are subject, in other words, to evolution, devolution, revolution.

And, as in the case of individuals, their growth, health, freedom from accident—their continued prosperity—depends upon their knowledge of the laws of Nature and the intelligent use they make of this knowledge.

#### **“Great” and “Small.”**

Seemingly “Nature” makes no more distinction between nations and individuals—is no more considerate of millions than of units, than we are toward an ant or a swarm of ants.

Indeed, in the midst of the billions of giant suns constituting our “Universe” the significance of our whole huge Earth and all its contents, animate, and inanimate, seems to shrink into absolute negligibility.

But, “great” and “small” are human notions.

“Nature” is just as “great” in its smallest parts as it is “small” in its greatest. And it is human Intelligence which comprehends both the greatness of the telescopic universe of suns and

solar systems, and the equal greatness of the microscopic “universe” of molecules and sub-molecules that make up a grain of sand.

#### **Responsibility.**

The practical point of this more or less philosophical introduction is that we humans find ourselves on a magnificently equipped earth, endowed with freedom of choice to use or abuse our splendid opportunities, with the inevitable alternative of sanely joyous life or futile premature death. And we of the United States hold the most favorable portion of the globe and an unequalled physical and spiritual heritage, with corresponding magnitude of responsibility; responsibility flowing from and out of our God-given and God-like freedom of choice.

#### **Intelligence.**

It is not necessary (as is both customary and confusing) to read “purpose” into the “acts of Nature.” It is enough to discern their unmistakably marked drift.

This drift is a datum—a basic fact—that willy-nilly we must accept.

It is this drift we call Evolution.

But there is this distinction between Man and “Nature”: Nature is impersonal, mechanistic; Man is endowed with Personality—intelligence and



freedom of choice; and is thereby enabled to become an active and purposeful participator in the processes of evolution, and by judiciously selecting his relation to the drift he becomes the sole responsible arbiter of his fate—the master of his destiny.

### **Perplexity.**

But, can man's finite mind really discern and steer a certain course among the infinite complexities of the Universe?

Why not?

The difficulty is not nearly so great as many think. For every complexity is reducible to simplicity.

Perhaps you have recently visited the California, one of our latest fighting ships. And being neither a naval man nor a mechanic, what you saw was probably a seemingly unintelligible and mind confusing mass of complexities, filling you with wonder, but also with helpless bewilderment.

### **Principles.**

But, looked at the right way, the battleship would have been as easy reading as this sentence is to you. You would have automatically looked for the very few essential ideas—principles—upon which every mechanism and every combination of mechanisms must be built; and these perceived, the rest would have been as simple as unrolling a ball of twine; for, after all, what you saw was only a dug-out with cobble-stones to throw at the enemy—modernized.

### **Complex Machinery?**

You know that the battleship hull is merely a large floating sharp-ended box or shell. You know that it has motor means to give it motion; steering means to give it direction; armament to give it fighting efficiency.

These simple essential elements equally characterize the primordial savage war-canoe and the modern civilized battleship; and so considered one is no more bewildering than the other. And both are equally within the grasp of common-sense clear and ordered comprehension.

As to the myriad minute details, by which these simple elements have gradually attained their modern re-

finement, these are matters of merely incidental interest; each one of which complexities, however, could be reduced to the same simplicity separately—by the same method.

Indeed, these separate elements constitute subject matters of separate arts, and they have been arrived at by the skilled mechanic by a process essentially corresponding to that which I have suggested to you, as the right way of looking at the battleship.

### **Fictitious Complexity.**

The Mechanic knows no more about the ultimate nature (i. e. details) of the matter, materials, and forces which he employs, than you knew about the details of a fighting craft.

All he knows or cares about are a few basic facts, the simple principles (elements) of Mechanics, and he produces his results, so bewildering to you in their fictitious complexity, by applying these simple principles to whatever task he tackles.

### **Experience.**

You will not charge me with egotism if I remind you that I am talking as one who has been there.

In my long experience as inventor, as inventor's adviser, as expert in a multitude of technical questions and patent litigations involving matters of the most intricate character, I have never found my method of laying hold of the principles to fail; and I have never encountered another that will work.

### **Method.**

Now this method, though unfortunately far from universally practiced, is quite universally available.

There is no reason in the world why you should not employ it as well, and with the same confidence, as I. For it rests, not upon a special endowment or any particular attainment, but on the commonsense discernment that every effect has a cause, and that at the bottom of a cluster of interrelated effects one must reach a simple cause.

### **Universal Applicability.**

This effective method of attack is seemingly of universal applicability,

and you should now be able to recognize its use by me in the various articles of mine that you have read. You may also fathom the cause and foundation of the seemingly egotistical confidence with which I, a mere mechanic, plunge headlong into the all-but-sacred-and-awe-inspiring region of Sociology, Economics, and Finance—and unhesitatingly invite you to follow me.

The method has in the past enabled me to successfully pioneer in quite a number of arts in the details of which I was as ignorant as I am of those of Economics and Finance. Thus I do not feel that I am suggesting to you a course fraught with any more danger than that normal to being alive; either when I recommend your adoption of my method of attacking problems generally or in my asking you to follow me in my application of it to our "Social Problem".

### **Why Pessimistic?**

You will remember that the first part of this series ended somewhat pessimistically envisaging an ominous prospect and causative influences seemingly deep-seated and running back into the mists of antiquity. The great mass of the people are becoming more and more discontented with their condition, more and more perplexed concerning its cause, and more and more bewildered (and increasingly impatient) as to the course to be pursued.

To all with eyes to see it is clear that the social body is profoundly sick. And equally clear, that to cure a sickness, one must remove the cause; and that unless the cause is so removed, the sickness will run its course—possibly to death.

### **Forestall Revolution.**

In the social body, when the process of sickness (such as we are now passing through) reaches a critical point, another phase or phenomenon usually supervenes to save the moribund body from actual extinction: Revolution.

And just as it is the task of a sick man to fight off death, so our social

problem, in its essence, is the task of forestalling Revolution.

### **Remember the California.**

With our visit to the warship in mind, let us now prepare to apply to our Social Problem the method there tried out.

We must first of all ascertain and grasp securely the simple basic principles on which the mechanism of the social body is built. This will carry us out of the maze of confusing details into the clearness of ordered comprehension.

We shall then be in a position to make an intelligent diagnosis of the social disorder, and to at least think clearly regarding the remedial course to be adopted.

And, lest there be needless apprehension, let us note right here that it will not be necessary for us to lay down the curative (or reconstructive) procedure in its particulars—"a practical remedy" in detail. Just as on the battleship we should find experts competent to execute the details of any change found desirable, so we have in the social aggregation technicians to perform the corresponding tasks.

### **What Evolution Is Not.**

No word is more on people's lips than "Evolution"; and none is more frequently misused, and misunderstood.

Social Evolution is often talked of as if it were a cosmic process forced on men wholly from the outside, regardless of their yea and nay; or again as if it were a beneficent dispensation "from on high" that somehow, and regardless of men's acts, will float them to the haven of social bliss.

The typical expression of this last extraordinary misconception is: "Things will right themselves!"

### **What Evolution Is.**

In so far as "Social Evolution" is used not merely as a pretentious label for any adventitious change, but for a continuing process analogous to that which has produced the animate world, from amoeba to Man, Social Evolution is indeed a "Nat-

ural" force which Man must accept and to which he must adjust himself as to all other forces of Nature, but which, like any other natural force, is available to Man for the accomplishment of his own purposes.

Thus—and this is the decisive point—Man is not the helpless object of this evolutionary force, but a participating subject—a Master Mechanic.

### **Man's Will.**

It is nonsense to say Capitalism must persist or that Socialism must come, by virtue of social evolution, whether men desire either one or the other or neither. Men in their social relations are not dust motes blown hither and thither by evolutionary winds. Men are intelligent beings, with freedom of choice; that is, free to use their intelligence.

Use their intelligence for what?

Obviously not for the purpose of trying to re-make Man—to treat as negligible basic traits fixed by successive survival through a million generations; or of attempting to alter the eternal forces of Nature.

That were vain indeed!

Natural forces, in social as well as in molecular and molar mechanics, in social as well as in biological evolution, are inexorable. They are not hostile to Man, neither are they friendly; they are simply regardless of him—impersonal.

If they have any "will", they show none toward Man.

But Man has will. Man has purpose.

Man can!—if he will. . .

### **Man's Way.**

How then does Man do his will, work his purpose?

To him who tries to see below the surface it is clear that purposeful action invariably is pivoted on a judicious choice of the man's position in relation to the circumstances which he confronts.

This is true even of the trite conditions of our daily lives: even these are usually determined for us. Our real freedom of action means our choice of different ways of placing ourselves in relation to these con-

ditions—as a sailor, to keep his desired course, sets his sail with reference to the wind.

### **Choice of Relation.**

It is even so with the greatest affairs, with the concerns of the Nation, with our whole Social Problem.

Certain forces face and envelop us that we cannot change. But we can set our social sails and order our actions in relation to them and thus mediate affect the course of our social craft in the direction of a humanly desirable, predetermined goal.

If our choice is unwise, those forces will run to our hurt. If we choose wisely, we may make a force seemingly opposed to our aim—subserve it. Thus we can convert what otherwise would have led to destruction into constructive upbuilding—change malefaction into benefaction, criminality into social service, general nuisance into commonweal.

### **Preventable Calamities.**

Think of the Johnstown flood, the San Francisco fire, the Titanic disaster, the frequent destructive overflow of the Mississippi, the recurring inundations of the Sacramento Valley.

All these represent Nature acting regardless of Man; and Man acting regardless of his own intelligence.

In all these cases natural forces overwhelmed Man with calamity because he had failed to exercise his intelligence in rightly choosing his relation toward these forces.

### **After Event Wisdom.**

After the destruction of Johnstown, the seasonal floodwaters were wisely impounded—to prevent a repetition of the disaster.

After the San Francisco fire, buildings were wisely constructed of steel and concrete and an adequate water supply provided—to prevent a repetition of the disaster.

After the Titanic and her human cargo had perished, her sister ship was wisely fitted with a double cellular bottom, and other provisions—to prevent a repetition of the disaster.

After seasonal floods of Sierra



snow waters have, time and again, destroyed, wholesale, men's works and the products of their industry, engineering measures are contemplated in our great valley—to prevent the recurring disasters.

### **Why Not Before?**

The Johnstown people knew their danger from flood!

The San Franciscans knew their peculiar danger from fire!

The owners of the Titanic knew the danger from icebergs!

And all of us in the United States now—except those deliberately obstructing their mental vision with blinkers of happy-go-lucky optimism—realize our impending danger from Revolution.

There is nothing so foolish and ultimately disastrous as to blink unpleasant facts; "saying peace, peace: when there is no peace."

This blinking of facts—"trusting to luck", trusting that "things will right themselves"—is the true cause of disaster.

Shall we of the United States act like those foolish ones and like them suffer for our foolishness?

Shall we continue to act with equal foolishness and enact silly "prohibition" and other repressive laws intended to accomplish the impossible—change fundamental human instincts and overturn the unalterable laws of Nature?

Shall we, like Europe, wait to learn wisdom from social catastrophe—revolution?

I hope not.

### **Ways and Means.**

My hope that we shall forestall revolution will undoubtedly be echoed by all true Americans.

But that our hope may be fulfilled, we cannot trust to luck or that things will right themselves.

It will be necessary above all that we act, and not only act, but act intelligently. And we seem, as yet, far from anything like a general understanding and agreement as to what must be done and what can be done.

We cannot (and we would not if we could) prevent the snow falling on the

Sierras. We cannot prevent that snow from melting when and how fast it will. No matter how much we may prefer a nicely and "benevolently" calculated graduation, we cannot prevent a sudden and "malevolently" unseasonable rise of temperature and sudden starting of a thousand "devilishly" destructive freshets.

### **Adjust Ourselves.**

But we can protect the forests, impound flood waters, regulate stream channels, build reservoirs, dams and levees. In short, we can forestall destruction flowing from impersonally neutral natural forces, which in themselves are unpreventable.

Every one knows how much in that way we have already accomplished, and how much more is planned.

We are not, however, confined to prevention. Flood waters, which would devastate, can be (and, as well known, are) turned into priceless means of production. By intelligence and skill and purposefulness they are made the means of reclaiming for man's use the desert, and of "generating" light and power, and of helping to build up what may, and what many of us loyal Californians firmly believe will, become the apex of human culture, the highest and truest civilization on earth.

### **Immutable Nature.**

The point of application is plain. There are about us social forces that in themselves are just as little under our control as are the snow fall and thaw. Left to themselves they must run their "natural" course. And, like as not before we have time to catch our breath, the flood will be upon us; that direst deluge of all—Revolution.

We cannot change the elemental facts of human nature.

### **Unchangeable Types.**

In the first part of the first series of these Technocracy papers I have sketched in outline the origin and development of the primal instincts and propensities. These are as fixed as natural forces. They are, indeed, natural forces.

We cannot change a bellicose man into a pacifist—a Roosevelt into a

Wilson; nor a feeder and breeder into a philosopher; nor the acquisitive into the inventive. We cannot by any direct act abolish or even change selfishness, cunning, greed, cowardice, just as little as it would avail to try (and it has been tried) to eradicate courage, generosity, industry, public spirit.

### **Human Material.**

To the social philosopher and the enlightened social reformer, and best of all to the plain citizen taking thought of these matters, the first step in the right direction, the first basic principle that must underlie an understanding of the present Social Disorder and be imbedded in the foundation of the Social Order to come, should be the real and effective recognition that all that may be accomplished must be accomplished with the existing human material.

### **Not Angels.**

There is nothing in this proposition to cause dejection to any one except to those who think our only salvation lies in our acquiring halos and growing wings.

To many of us there is much deeper satisfaction and cause for hopefulness in the fact that, thanks to the Scientist, the Inventor, and the Mechanic, flying has become mechanically possible, than sorrow over the circumstance that our heads are not helioid and the skin covering our scapulas (male or female) remains as bare of feathers as before.

### **Reconstruction.**

It is indeed the Scientist, the Inventor and the Mechanic who must, as I propose to show, guide and help us on our way—if we are to achieve social salvation.

Let our Scientists prove intelligent, our Inventors resourceful, our Mechanics skillful, and us ready to draw on our combined common-sense and courage, there need be little fear that our work of Social Reconstruction will be brought to naught by inadequate human material.

Reconstruction: That and no less we

must attempt if we are to prevent disaster—forestall Revolution.

### **Simple Principles.**

The obvious prerequisite to our beginning our reconstructive work is an understanding of ourselves and the existing social mechanism.

And to gain such understanding we shall follow the method outlined in connection with our visit to the California:

We shall refuse to be daunted by surface and fictitious intricacy and the multiplicity of details.

We shall seek out the simple essentials, and we shall remember:

First, that every mechanism whatever, no matter how vast and complicated, is built on simple principles.

Second, that it would be impractical and futile to specify "a practical remedy" or to lay down a "practical program of reconstruction" till we practically agree on social principles and practically agree on the purpose of the proposed social reconstruction.

Third, that laying hold of such principles is like unlocking a door; and a knowledge of the principles of the social structure is the key (and the only key) to an understanding of the whole of it and of how it works.

This last implies that it is needful also to note that to know how a mechanism works is as requisite as to know how it is made. Its working as well as its structure must be understood. But a knowledge of a structure almost certainly brings with it a like knowledge of its working.

It will therefore be our task to separate society into its very few and very simple main parts, and to observe their activities and the working of society as a whole.

### **Natural Groups.**

Obviously the units of society are the human beings comprising it.

As I have set forth earlier, these human units naturally arrange them-

selves, by virtue of their economic traits, into natural groups. These groups, then, are the essential (main) parts of the social mechanism.

When we have learned to understand them, their interrelation, and their functioning—their natural working—we have learned to understand society as a whole.

Having learned this, our ideas regarding "Reconstruction" will have become clear, precise, and practically usable.

### **Unchangeable Human Nature.**

Let us take a forward look here, in order to better know where we are at, and where we are going.

We cannot change human nature; on that we are, I hope, agreed. The human units are beyond the reach of Reconstruction.

Can we reconstruct their groupings—the social elements?

If I am right in holding that these groupings are the expression of immanent economic traits, and thus the working out of "human nature", these too are fixed facts.

The essential social elements are also not subject to Reconstruction.

What, then, in heaven's name, I almost hear you cry out, is there left to reconstruct?

### **Ask—Tin Lizzy.**

If you had dealt as much with machinery as I, you would not be puzzled. And you will cease to be puzzled as soon as you reflect a little.

And—your tin Lizzy can tell you all about it.

Ask her, nicely and properly, she will tell you:

Her besetting vice is friction; but

without friction she could do nothing—either praiseworthy or reprehensible.

Lacking friction: instead of being a jocund joy, she would be uselessly futile tinware.

She will skittishly skid on a greasy road, or stall in loose sand because of—insufficient friction.

But, also, she will refrain from these improprieties, answer her brake, and conform to your will only—because of friction.

It is friction getting in its deadly work when her joints and journals screech for oil; and it is friction that compels you to everlastingly buy and replace her worn-out in'ards.

But, and finally, she speeds her flirtatious chu-chu-ing way on the level and chug-chugs laboriously uphill—God bless her—by friction.

### **Freedom of Choice.**

One and the same force, then, will work both "good" and "ill", depending on the conditioning interrelations—our selected relation toward the neutral natural force,—our purpose.

Just so, one and the same machine part, or one and the same social element, will under different conditions of interrelation or coordination produce totally different or even opposite results—depending on our choice of purpose.

In brief, what we can reconstruct is the interrelation of the social elements. And such reconstruction must proceed from a clear conception of what end the whole social mechanism is to serve—our National choice of purpose—our National Objective.

Fernwald, Berkeley, California.  
November 11, 1920.

IS HUMAN FREEDOM ABSOLUTE OR IS IT  
CONDITIONED ON RATIONALITY.  
AND NATURE'S LAWS?



# Technocracy

## Second Series

### PART III.

## A Working Method for a Workable Understanding Of the Social Problem and of a Workable Reconstruction.

By William Henry Smyth

Note: Proceeding from the understanding reached in Part II, that the natural social forces are fixed facts which cannot be altered, Part III shows how they may be utilized for a human social purpose.

It shows that while human freedom must act within rigid laws of nature, it is not thereby limited. The intelligent realization of this fact has made the mechanic effective and his accomplishments possible; failure to attain this insight in social relations has produced what we call the "social problem."

#### Microscopic Scratch to Panama Canal.

Seemingly there is no physical task beyond the capability of the Mechanic:

Measuring and weighing machines accurately determining relations of ultra-microscopic minuteness up to those of cosmic magnitude; machines for production, for transportation, for reclamation, for communication; machines of all grades of size and of power, and of capacity, and of precision—from bolometer measuring variations in pressure of light-waves traversing infinite space to dreadnaught delivering its accurately placed and irresistible thousand-ton blows; from the hundred thousand in an inch accurately spaced diffraction-grating scratches to Culebra earth-gash of the Panama Canal:

These are some of the works of the Mechanic.

#### Methods Right and Wrong.

Clearly it is pertinent to our inquiry to ask: How does he do it?

When we note in one department of human effort certainty and success, and in another confusion and failure, it is more reasonable to infer that a deep-seated difference in method of procedure is involved than that the brains and intelligence of humanity have accidentally drifted into the one and deserted the other department.

The validity of this inference is emphasized by our common impression that Mechanics are more or less humble and low-brow, commonplace and ordinary fellows, while our Economists, Sociologists and Financiers are by-and-large haughty and high-brow, brainy and rather extraordinary personages.

#### The Mechanic's Wisdom.

Probably the most characteristic attitude of the mechanic toward the forces and materials with which he deals is unquestioning acceptance of the fact that he cannot change or anywise modify the laws of nature or the qualities of materials.

The mechanic, like the rest of us, wants to accomplish a multitude of purposes. Having determined upon the object of his desires, be it a machine to do something, or a change in the location of physical things, he proceeds upon the assumption which I have indicated: that he is debarred from changing or even modifying either the laws of nature or the character of materials; and so sets to work to get a clear understanding of these laws and of the characteristics of the materials involved. Then he so selects his relation to the appropriate forces and materials that thereby (through their natural cause-and-effect functioning) his purpose is accomplished.

### Nature Dynamic

But, what do we mean by "Laws of Nature"?

We do not mean a catalogue of inert, dead "facts."

A law of nature implies motion; not rest—Universal Energy in universal orderly activity—it is not a static, but a dynamic concept.

It is the description of a process and the conditions under which it runs. Essentially it is a precise statement of the simple notion—based on experience—that if something happens, something else will happen as a consequence.

Nature is dynamic—it is eternal Doing.

Ceaseless change is of Nature's essence.

Even what we call inert matter is constantly changing and undergoing elaboration and displacement.

What does not change are certain relations, which we spell out under the notion of cause and effect.

Thus a law of nature is the expression of what is ever changeless within the ever changing.

### Freedom Through Knowledge.

It is such clear and adequate understanding of and conformity to the laws of nature that gives to the Mechanic his freedom of action—his certainty, his success.

He goes to his task neither cowed by the irresistible natural forces nor ignorantly contemptuous of them. He knows them; and with his objective clear before him, he so makes his selection among them and so chooses his relation to them that his work may be accomplished through their service—through Universal Energy.

The Mechanic's purposive freedom (expressed in his accomplishments) is made effective through knowledge of, but by, Nature's Causative Activity.

### Neutral Nature.

Nature is neutral to Man, to his hopes and his fears, his projects or his lack of them.

Neutrality, however, does not necessarily imply passivity. There is a neutrality in action as well as a neutrality in rest: A swimmer's choice of direction is not diminished if he can take

advantage of currents flowing in the chosen course, but on the contrary, his effective liberty is thereby enhanced.

And the last word of Science is that "Nature" is an infinitely directioned but orderly flow of Universal Energy—currents infinitely directioned and available to liberate all who will patiently study them, and to realize all their rational purposes.

It is in this sense that there is truth in the otherwise inexact statement that the mechanic has learned to "control" nature.

As a matter of fact, he does not "control" nature.

As a matter of fact, also, nature does not "control" him.

### Doing the Impossible.

Some of you will remember the time, not so very, very many years ago, when aeronautics was still in the balloon stage, and when at our own university here in Berkeley one of our most revered and renowned and forward-looking scientists "demonstrated" that flight by a heavier-than-air contrivance was a physical impossibility—as contravening certain laws of nature.

As we all know, the Professor was wrong. But his error did not come from overrating the laws of nature, but from underrating man's freedom and ingenuity in choosing his relation to them.

The fact of gravitation is beyond the will of man and mechanic—leave it or lump it. It is just the same as it was when the Professor asserted the impossibility of the aeroplane. Yet now the overhead whirr (that still thrills some of us) has become so familiar that busy men hardly look up.

How was this seeming miracle accomplished?

In essence: by a design calculated to put the aviator in suitable speed relation to that proverbially lightest of things, the air, and thus its natural (upthrust) resilient energy counterbalances natural (downthrust) gravitational "pull".

In short, the mechanic utilized natural forces appropriately—placed himself in appropriate relation—and thus attained his desired objective.

But, the mechanic, no more than the animal, the fish, or the bird, "controls" these forces of nature.

### Conditioned: Not Limited.

The wind bloweth where it listeth. Of the forces of nature man cannot alter a jot. But he has practically unlimited scope for determining his own relation with regard to them.

Man does not control nature.

But man can utilize the active forces of nature—without limit.

The "Practical Mechanic" has learned this lesson, as he has also learned to utilize nature to attain his own objectives—hence his success.

The Social Mechanic (sociologist and economist) has learned neither;—hence his failure.

Considering the limitless extent and infinite complexity of nature, there is thus given to Man an equally unlimited scope for his activity—even to the point, as shown by the practical mechanic, of attaining the "Impossible".

This holds good of all men's aspirations and activities, in his social arrangements no less than in his mechanical contrivances. In one as in the other he has infinite choice.

Man may attempt the seeming impossible—and succeed!

Man is free!

### What Is Freedom?

With respect to the laws of nature, and the mechanic's attitude toward them, may we not now feel that we are on firm ground?

But, what do we mean by "freedom"?

Freedom! Invoked by myriad-voiced chorus, called in vain by ignorance and folly! Spirit of democracy, yet not understood by democracy!

Endless foolish talk of freedom, with all manner of etherial attenuations of metaphysical abstractions, perfervid declamation, profound misconception!

What I mean by Freedom is exceedingly simple; but directly this meaning is grasped, the light it sheds on social relations becomes all-illuminating.

Freedom in matters social is pre-

cisely what I have shown to be the mechanic's freedom in his dealings with the forces of nature.

No more, no less.

### Free to Choose.

The mechanic is not free to change, he is free to choose the facts and forces of nature. He is free to use them as he wills, to his own and others' good or—hurt.

Neither can you or I change the social forces, the social materials. But you and I and all of us together are free to choose and use them for a predetermined purpose and our advantage; but unused, they—with cosmic indifference—quite commonly run to our undoing.

The human units and essential group elements of the social structure and their natural laws are as much nature-given, nature-made and nature-determined, as the units, elements, and laws of the mechanic's constructions. They are the facts, the data which we must accept, as the mechanic accepts the characteristics and functions of the wood, or clay, or iron, or wedge, or lever, or whatnot of his craft.

### The Only Way.

If Society and Social Reconstruction are to exercise freedom, it can only be by wise selection and purposeful utilization of the material offered by nature.

Chemist, electrotechnician, metallurgist, farmer, plant "originator", and animal breeder—all (in effect) so appreciate the rationale of their activities, and thus gain success.

When the stock-breeder wants cows that produce more milk or heavier beeves, he does not pray, nor employ magic, nor serve, notice of specifications on nature. What he does is to get busy with actually existing cows and beeves, in whose make-up he has no say whatever; and by applying his knowledge of genetics and crossing the appropriate strains, he finally gets what he is after. So far from "controlling" nature and essaying to dictate to her, he is her humble, patient and painstaking pupil. And so it is that he, after all (in effect), "makes" her do his will.

### Let "Nature" Do It.

No one will more heartily agree with the Mechanic's Philosophy, as I have outlined it, than my friend Luther Burbank. He knows in highest degree how nature's "secrets" may be learned; not evoked by magic or any form of wizardry; not wrested by flying in the face of nature's laws or by nullifying natural forces; but gained by patient search, by persistent study, judicious choice, and intelligent application to a well defined purpose—objective. That is, exercising one's freedom in choosing his relation to the facts of nature. Man did not make the myriad-spike-armed cactus. But, Burbank has induced "Nature" to make the heretofore hostile cactus, spineless.

And so also, Dr. Jacques Loeb, Dr. Ritter, and the other biologists searching for the secret of how "life is made" and conceivably to "make" it themselves, they all, I feel confident, are imbued by the same understanding and in essence follow the same method.

### Re "Social Problem."

This and no other must be our method in dealing with our Social Problem. Not otherwise will a (humanly desirable) New Order ever arise from the existing Social Disorder.

For this Disorder is the resultant of natural (social) forces, forces towards which men, failing to exercise their freedom of choice, have taken no defined and socially purposive position at all or an irrational position, i. e. in opposition to natural social forces. And these social forces will and must obey their immanent laws and run their nature-appointed course, even to the obliteration of civilization and civilized man's destruction, unless and until he becomes fully aware of the situation, learns to know the social forces and their laws which he confronts, and deals rationally with them as does the mechanic with the natural forces in his department of effort.

Let Man—in social relation—but reach such competence of insight and competence of action as the Mechanic has already attained and the horizon

of the socially attainable will be extended immeasurably.

### Scepticism.

It is not unnatural that so many proposals for social betterment should encounter scepticism. The man who waves them aside with the (to him) conclusive "impossible," is less of an impossibilist than the typical "reformer" who makes them. For those proposals commonly rest, not on scientific knowledge of the natural laws involved and a competent technology in dealing with them, but on mere wish-father-to-the-thought; from which pedigree nothing comes but futility.

But a suggestion for social action, no matter how unprecedented, how "impractical," no matter how startling on the surface and to superficial inspection, if it discloses itself as securely founded on the facts and laws of society, will claim criticism of a very different order.

Only the self-interested will hurl angry epithets.

Only the unthinking will then cry "impossible."

Only the impractical will cry "Give us a practical remedy," "Give us a practical program of reconstruction."

And when the basic point of view which I am here abbreviatedly setting forth shall have gained acceptance, it will follow that what is now labelled impractical and socially impossible will be universally regarded as the matter-of-course; just as the "impractical" and "impossible" airplane of twenty years ago is with us, now, an every-day reality.

### Absurdity Rampant!

If my extended experience with inventing had not taught me so securely that the most formidable obstacles and difficulties dissolve of themselves, as it were, before the method which I am outlining, and what victories over the "impractical" and "impossible" may thus be won, I do not know that I should have the heart for any sociologizing; so great and grotesque is the contrast between what humanly is and what humanly ought to be.

Look about in any direction: You



find absurdity running rampant—running Society.

### Ubiquitous H. C. L.

Charmed if not charming symbol of man's economic ineptitude—H. C. L.

Tons of paper and printer's ink and myriad dynes of linguistic energy have been used up in vain speculative efforts to track it to its lair, to stop its soaring, to understand, to curb, to control it.

And while the writing and disputing, learned and unlearned, are at their hottest,—lo! things mysteriously begin to happen.

### Howls and Grins.

Wool drops 50 per cent and—a million-dollar howl goes up from the sheepmen.

Wheat, which sold at three dollars a few months ago, is now precariously hanging about two dollars. The price of cotton has been cut in two since spring. Cattle and hogs on the hoof have slumped. Prices of staple fruits are down—billion-dollar-shrieks from the agriculturalist.

City man grins.

### Why Blame Anyone!

In the why of these ground-and-lofty acrobatic performances of "prices" I am not at present interested. But what does interest me—and you—at this point is the difference in emotional response from different portions of the American people.

Roars of rage from the farmer:

A nascent smile—a flickering grin—of hope on the faces of the urban consumers.

Would you blame the farmer?

I don't.

He must raise "high-priced" crops on his "high-priced" land—blessed are the land-speculators and boosters! How else could he make "interest," let alone a "profit," on his "investment"?—blessed our system of finance and financiers and "financiering the enterprise."

And is not everyone legitimately, necessarily, "naturally" out for the boodle?

Said a Hayward poultryman a little while ago (a very decent good-natured

fellow, quite undistinguished for capacity): "I hope eggs go to two dollars a dozen."

Can you blame him?

I don't.

Do you blame any "profiteer"?

I don't.

Would you blame Mr. City Consumer for rejoicing at Mr. Farmer's sorrow?

I don't.

### Fifty-Fifty.

Let us note parenthetically that Mr. City Consumer's joy is, as yet, only anticipatory.

The decline in values on the farm has not, as yet, penetrated into his grocery store—with marked visibility. (Maybe it will not.) And his (decline-in-wool-inspired) scouting of clothiers' show windows has not, as yet, disclosed any hope-confirming tags.

Perhaps, indeed, though wool go down fifty per cent, suits may go up another fifty.

Why not?

Is not our "economic system" equal to almost anything—preposterous?

It "naturally" makes every citizen an enemy of every other!

"One man's misfortune is another's opportunity."

Of course! Naturally.

### Serious Questions.

What are farms and farming to the city dweller?

What is the city man to the farmer?

What is the householder to the store-keeper?

What are they all to the laborer?

What is the laborer to them all?

What are producer and consumer to the Nation?

Where is there any understandable and unifying interest?

### Civil War.

You cut yourself down to one fire in your house because coal is so dear; but West Virginia and Alabama have been enjoying the diversion of civil war, because the coal miners want more wages. And they are as far from sybaritism as you are from being a miser.

But the Coal Barons do not languish.

Truly our grotesque "economic sys-

tem" is equal to almost anything preposterous.

Obviously it is equal to producing the quaint, Alice in Wonderland, result of placing one good and amiable American in Hayward and another equally good and equally amiable American in Berkeley into a relation of active antagonism in life and death hostility of interests and aims; hostility as real, as necessary, as "natural," as if they were members, not of a supposedly unified nation, but subjects of two atrocious nations—at war with each other.

Quaint hardly expresses it . . . eh?

### **Those Patched Breeches!**

Why has wool, let us say, dropped in price?

Because, say the "economists and financiers," the world's market for wool is overstocked.

Think of it!

But how on earth has it become overstocked?

Think of it.

If a tithe we are told about Europe is true, half her people have hardly rags wherewith to cover their nakedness. And we dwellers in the richest land of the earth (and, as we sometimes fancy, owners thereof) have we not been performing marvels of skill and patience (ye gods, how long it seems!) in patching sleeve elbows, in patching shoes, in patching breeches seats, in patching our ragged tempers, and in pretending that—if we have one—an overcoat is appropriate for summer wear and—public appearance.

Why?

A sheepraiser in the Sacramento valley will tell you he is compelled to warehouse his present season's clip indefinitely.

Why?

"Wool is not now saleable"!—"There is no demand whatever!"

No demand for wool! Mark that.

And, of course no one feels the slightest desire for a new suit of clothing.

So there you are.

Truly, quaint beyond expression.

How do you like it, Mr. Man?

And, how do you like it, Friend Lady?

### **Futile Tinkering.**

But these examples of our preposterous "economics" are obvious and commonplace. I should not waste my time and your patience just to speak of such trite matters; or to add another "practical" suggestion for "bettering" them to the futile scrap-heap of "practical" palliatives.

He would, indeed, be a fool-mechanic who would waste time and material tinkering with details of a mechanism after having on careful examination decided the device to be wrong in basic principle.

Why waste futile anger and energy on Financiers and Profiteers when they are perfectly "natural" elements in our "economic system," as our national social aggregation has developed from its ages-old "natural" heritage?

I would not, if I could, stop Profiteers from profiteering, nor Financiers from financiering, nor punish any one for playing our fool-game according to its crazy rules—better than the rest of us.

### **Effective Reconstruction.**

What I am driving at is a working method, for a workable understanding of the "Social Problem," and a workable Social Reconstruction.

However difficult in application it may appear to the unthinking, or however undesirable to the self-interested, the method I propose has the effectiveness and simplicity of rationality. It has that perfect simplicity which lies at the heart of useful discovery and invention.

The discernment for which I plead is that our society is wrong in basic principle, is based on anti-social principles. It is a left-over from our European heritage and—headed for the same outcome.

Its various parts have developed in obedience to natural forces, are working in obedience to natural forces, and the outcome will be the natural result of the interaction of these nature-given materials and natural forces.

### **Elements Unchangeable.**

It is childishly futile to try to tinker any social machine part—any social element—into workability, by itself.

In the first place, these elements are in their essential qualities unmodifiable. Just as the mechanic's materials are unchangeable.

In the second place, even could they be singly altered, what good would that do? They still would remain essentially isolated elements, aggregated in this or that connection, but uncombined by any unifying human design into a humanly purposeful whole.

### **Society a Machine.**

It has not been effectively recognized, despite the universal use of the phrase "social body," that society is a body—a mechanism.

Just as a man's body is really a machine, a heat motor, as mechanistic as a Tin Lizzie or a battleship; just as an army (in every proper sense of the term) is a military machine: so a Town, a State, or a Nation is equally mechanistic—a true Machine.

Let us look for a moment at the effective implication and significance of this notion . . .

When your body is "sick" and annoying you by not obeying your will, it is acting in obedience to universal law with the same precision, regularity, and mechanistic predictableness, as when it was "well" and acting responsive to your will.

The only real difference is: in one case you like, and in the other you dislike,—the outcomes of the same universal law, the same mechanistic natural order.

Fernwald, Berkeley, California.  
November 15, 1920.

Just so with the social body.

If we do not like the outcome of our social organization, and if we will use our constructive imagination to conceive an outcome more to our liking and use our freedom of choice to choose such outcome; and if we have initiative to undertake, and constructive skill (and courage) to rearrange the nature-given elements in suitable relation to social forces and factors to produce the chosen outcome—then the solution of our "Social Problem" will be in process.

And as I have said, "sickness" which in the human body brings crises, boding physical death, in the social body brings—Revolution—portent of National Dissolution.

### **Purposeful Social Evolution.**

It is quite useless to promulgate "practical" programs and platforms, and childishly impractical to prate of the common interests of (dead) "capital" and (living) "labor" and the need of bringing them together, and so forth, and so on and on . . .

The only measure that will prevent Revolution is Purposeful Social Evolution: Social Reconstruction of such kind as will turn what is now a senseless anti-social, internecine warring aggregation, into a purposeful working combination; into a real Nation—a Nation unified by a common purpose—a National Objective.

IS NOT HUMAN PURPOSEFUL FREEDOM  
MADE EFFECTIVE BY KNOWLEDGE OF  
NATURE'S CAUSATIVE ACTIVITY?

# Technocracy

## Second Series

### PART IV.

## Labor, Skill, Tally, Organization and Their Functions: Production, Distribution, Direction.

**By William Henry Smyth**

Note: This the concluding part of Technocracy—Second Series gathers up the preceding considerations for their logical conclusions.

The solution of the social problem is shown to lie in man's making use of his unique self-conscious freedom and rationality for purposefully co-ordinating the nature-given and nature-elaborated elements of the social structure; which the essay describes in their essentials. In this way man makes himself a participator in the miracle of creation, the evolutionary process, and his own physical, social, and spiritual development.

The alternative presented is, on one hand: animal instincts running their "natural" course to social chaos, to revolution; on the other hand: human reason utilizing the instincts, for the attainment of social order, true social evolution.

#### Basic Requirements.

Feeding and Breeding are the fundamentals of social life.

Any circumstance—"natural" happening, or artificial arrangement—adverse to these basic requirements is anti-social and socially disruptive. Conditions favorable thereto are conducive to social development.

#### Inherited Animal Instincts.

Not only are these requirements basic to human society, but they are and always were equally necessary to all forms of "lower" animate existence.

Thus it is that (to ensure feeding and breeding), "Nature" during the aeons of experimentation which we call "Evolution" has developed a variety of fixed preservative instincts, traits, and characteristics in the animal world. From the animal world, we as animals have inherited such of these instincts, traits, and characteristics as were necessary or most favorable to Man's survival and present dominance.

#### "Gifts": Peculiarly Human.

In addition to these, man has acquired, attained, or been endowed with "gifts" peculiar to himself which render him unique—Consciousness of Self, Freedom of Choice, and Purposeful Rationality.

#### A Cosmic Invitation.

By these latter acquisitions, Man has been placed in the peculiar situation of being an invited participator in the evolutionary process, including also the working of this cosmic process as concerns himself.

This momentous invitation he is free to accept or reject.

#### Accepted?

If he accepts the invitation he assumes its inherently implied terms. He assumes responsibility for the outcome of his interference with the evolutionary process. He gets the benefits which his intelligent co-operation may bring him, and the accomplishment of his own desires, but, also, he must bear the pains and penalties of his own foolish actions.

If he accepts the invitation to take a responsible part in his own evolution, he has at his disposal all of the active forces of Nature including those which motivate himself,—his bodily mechanism, his instincts, his proclivities, his economic traits, his intelligence—to make or mar himself and his institutions.

#### Rejected?

If he does not accept the invitation to participate in the miracle of cre-



ation and the Cosmic Enterprise, the Great Undertaking goes on without a flicker of disturbance—indifferent to his existence—or what amounts to the same, regardless of outcomes which are humanly desirable.

### Outcome.

All of this means that human society as it exists today is the end-result of these various factors.

If the outcome does not please or suit us it is our own fault and the remedy lies in our own hands—with the proviso that we realize the terms of the implied contract and understand the nature of the instrumentalities at our disposal with which to realize our purposes.

### Conditioned on Understanding.

In brief then, all human accomplishment, all invention, all attainment of anything "new," are conditioned on an understanding of the facts and laws of nature involved and the choice of an appropriate relation to them, with reference to the determined purpose.

Society is a structure based, like everything else in the universe, on nature-given facts and laws.

The prerequisite then to our present endeavor, to map out a course of social progress, is to have a clear understanding of the facts and laws of nature involved: of which the first item is society's composition.

### Elements.

Man is a strong, skilful, cunning animal endowed with freedom of choice. Some are characteristically Strong, some are characteristically Skilful, some are characteristically Cunning. In others, again, these basic traits are merged in varying proportions.

The Social Elements—the essential (or main) parts of society—then are the groups formed primarily by the working out of the instinctive proclivities which I briefly sketched in the opening part of the first series of Technocracy.

The Economic Traits, strength, skill, cunning and the instincts, to live, to make, to control, to take, have founded and formed our social structure, in which they are still recognizable as its four great elements: Labor,

Skill, Tally, ("Capital"), Organization ("Government").

### Labor.

By Labor I mean that activity which is chiefly muscular effort. It is obviously the foundation of all other activities whatever, and as such it engrosses the effort of the great majority—the bulk of "the people".

Their motive urge is mainly "to live". They are impelled by no other special impetus towards any particular form of activity. Those who do the bulk of the world's work therefore find self-expression in the measure in which their work conduces to the satisfaction of their instinct "to live".

Thwart this, and Labor balks.

### Skill.

Skill, expressing the instinct "to make", must be taken in a sense wide enough to embrace not only dexterity, but also usable knowledge of matters and things conducive to physical accomplishment. The Skill element of society holds the scientist as well as the artisan, philosophy as well as technology.

The function of such a Skill element in a rationally, purposefully organized society is self-evident. How woefully far from this it departs in the actually existing society is likewise self-evident.

### Tally.

Whenever team-work is under way—or for that matter team-play—there is need of a record of each man's performance. To keep such record is the function of the Tally element in society.

This colorless, yet all-important, function the cunning instinct "to take" early made its own. The embodiments of that urge made themselves the keepers of the social tally-sheet—the "Financiers".

### Organization.

The Organization element coordinates and supervises the work of society. It prescribes what should and what should not be done, in relation to the work in hand—the purpose.

This element embraces the "author-

ities", the "government", the "employers".

### **Necessity and Freedom.**

The quality uniformly exhibited by all four social elements is their instinctiveness. They have developed from inward necessity.

But there is no such inner necessity for their interrelation, their co-ordination and combination into a social machine as a whole. That is not a matter of instinctive urge, but a problem of intelligence.

The present chaotic lack of co-ordination is due to lack of social purposive intelligence; it is the "natural" result of (and has been determined by) failure (socially) to exercise Man's transcendent prerogative: Freedom of Choice—freedom to choose his relation to natural forces in such manner as to make them subserve his predetermined united purpose—Community objective.

### **War of Instincts.**

Indeed, each element, far from uniting with the others in purpose, is "naturally" fighting every other for a greater gratification of its own "natural" urge, and the all-embracing urge of instinctive self-preservation.

It is in highest degree probable that, typically, the four instinct-characterized groups of modern society—the Masses, the Artisans, the Employers, the Financiers—do not think. Thinking is not their social function; they merely respond to the urge of their dominating instincts—the Masses to breed, the Artisan to make, the Employer to energize, the Financier to hoard—instincts which characterize separately many animals other than Man.

These various social groups instinctively resist any social conditions or conventions that tend to hamper the functioning urge of their characterizing instinct and instinctively struggle for its greater gratification—hence our "Social Problems".

### **What Is the Social Problem?**

The Scientists—scattered and few in number but socially significant—do think; it is their social function to think, to rationalize with constructive imagination. It is the Scientist's

function to solve problems, to pioneer, to blaze a trail into the unknown—to illumine the path of Social Progress.

Clearly it is the Scientist's social function to straighten out social snarls, to unravel social tangles:

To so organize society that human freedom and self-expression will be the product of and result from the rational relationing, the coordinate functioning and gratification of the human instincts.

That is the Scientist's great task.

That is our Social Problem.

### **Purposeless.**

Socially, Man has remained a merely instinctively acting animal. He has never unitedly pondered a social purpose, reflected on a freely chosen united objective.

When our inspection of the California had disclosed its constituent elements, we knew as readily for what purpose they were to work together: we knew what the battleship was for.

But for what socially determined end do our Financiers finance, our inventors invent, our laborers labor?

What is the purpose of Society?

Is it not true that, judging from society as it is, we must say it has no purpose?

Is it any wonder then, that we have a "Social Problem", and that most men face it in utter bewilderment?

### **Purpose Necessary.**

To deal effectively with the social problem requires then, first of all, that men become conscious of a social purpose. And a very little reflection will disclose the enormous difference which a difference of purpose effects with regard to otherwise identical processes.

The same purposive skill that makes—feloniously breaks.

### **Bees and Profiteers.**

Our profiteers have been filling their coffers just as bees are filling their combs. Essentially their activities proceed from the same source: instinctive drive to hoard.

Bee and profiteer are equally "selfish".

Each acts in obedience to the demand for self-expression. But whereas the utility of the profiteer's hoard (if it has any true utility at all) is for himself alone and prejudicial to society, the bee's honey hoard is for the whole hive.

What "Nature" has contrived in thus shaping toward an ulterior purpose the instinctive activities of a lowly insect, men must accomplish in their social arrangements by the exercise of their distinctively human qualities: reason, freedom and purpose.

### **No Use Calling Names.**

It is quite needless and useless to single out the profiteer for moral objugation; and in many, if not most cases it would be unjust to boot. His profit-gouging comes not from moral depravity, but from a special bent of mind, a particular ability: and our society, imprimis our quaint system of "finance," gives no scope to that ability—except to gouge the public.

Yet that ability—in its essence, instinctive hoarding—has a social utility of the highest order. And in an enlightened society, that is one purposively organized, it would not only find scope for its exercise for the public good, but be spontaneously so exercised, and with no less gratification for its possessor.

### **The War Illustration.**

Of how this might be accomplished, the War has already given us a sketchy illustration.

The men who were called to mobilize the social forces of the United States were commonly the very men whose pre-war activities had been more notorious for amassing huge private fortunes than celebrated for selfless public service.

Between the high officials of the War Industries Board, the Shipping Board, and so forth, and the membership of a "Millionaires' Club" there was little discernible difference of personnel.

Charles M. Schwab, the finance magnate, and Schwab, the war-organizer, were the same person.

All these men brought to their social, national jobs the very same talents that they had been employing

right along self-centeredly—unsocially, un-nationally. The work they did, their proximate functioning, was the same as before.

But what a difference in social result!

They were acting for a different purpose. That really makes up the whole of the difference.

The skill that feloniously breaks—can also make.

Where these hurriedly assembled mobilizers fell short of efficacy it was in the measure of their failure to equate completely their aims with the National Objective.

### **Greater "Temptation."**

It is worth while considering how it was that men pre-eminent for capacity of self-aggrandisement, for their ability, to put it in plain words, of using the Nation for their own private aims and advantage, came to make the Nation's purpose their own.

The outstanding fact is that they did it of their own free will.

The deeper lying fact is that they responded to the greater inducement: public good was a stronger stimulus, a greater "temptation," than private profit.

The decisive fact is that such response was made possible and induced by the (even if only crude and temporary) rearrangement of the social elements for the attainment of a National Purpose.

### **Work.**

Add to this the perception, for which I have so often contended, that there is no blinder folly than that which sees in "work" nothing but "the primal curse"; and that, on the contrary, doing—which is only another name for work—is the very essence and end of man's living, provided only it be the purposive work of his heart—and you have the whole foundation of the psychology of social reconstruction.

### **Order, Purpose, Freedom.**

Freedom is the first law of Man's nature.

Any social convention or construction which does violence to the freedom of the individual, of the group,

or of the Nation as a whole, is doomed to inevitable failure.

If any single cause is to be given for the social failure which we now so anxiously face, this cause, which earlier I have formulated as the absence of purposive design, may well be formulated as the infraction of the basic law of freedom. For in a chance-made agglomeration true Freedom can not arise and act, any more than in a void.

It is only in a true Order, in a purposively designed and rationally combined society, that Freedom can find the conditions for its effective being, its self-realizing activity.

#### **Disorder—Jungle Law—Restraint.**

Obviously there can be no real human freedom in a society based on primeval jungle law, only license and restraint. When it is the sole acting principle, (even if not the preaching of the pulpit) that he may take who has the power, and he shall keep who can, what can be the issue but intra-social warfare?—and, still more repugnant, a warfare in which victory is not to the strong, clean and courageous, but to the sordid, tricky and cunning.

#### **Fictitious Freedom.**

Let us not be misled by surface appearances. Ostensibly the mine owner has more freedom than the miner, the manufacturer than the mechanic, the merchant than the clerk. More profoundly, one is found to be as unfree as the other. For freedom implies doing one's reasoned will. But as members of a planless social monstrosity, no man can be a free agent. All are caught in the same chaotic social tangle; none guide their course by anything better than chance and their instinctive proclivities.

#### **Reason and Freedom.**

These instincts, as I have pointed out, are natural forces. And I have also shown how Man, the Mechanic, has achieved his conquests by bringing his Reason and Freedom of Choice to bear on natural forces: not in crazy hope of changing them, but to make them the realizing means for his reason and freedom—for his purpose.

Even thus is the task of Man, the Social Mechanic.

Our reconstructive effort must be so to reconstruct or rearrange the social mechanism as to utilize the unchangeable instincts, the economic traits (that is, the natural forces in our problem) for the accomplishment of a united social purpose, a National Objective.

#### **Man a Spiritual Entity.**

I have spoken so much in terms of mechanics that it may not be amiss to guard here against the imputation that I conceive of human life in such terms. My conception is indeed the very opposite of that. Man (though functioning in a mechanistic world through a bodily machine) is above all a spiritual entity; and his material and mechanical concerns and affairs are of importance only in so far as they affect his spiritual being.

#### **"Society."**

To avoid misunderstanding, it should be borne in mind that "Society" as used herein means the total of all those constituting the Nation—"tinker, tailor, soldier, sailor, rich man, poor man, beggarman, thief", et al.; but that Social Functioning includes only a limited part of their life in its totality.

Social functioning is the service part of modern collective (gregarious) life—for material well-being. Its relation to national life is analogous to that which the kitchen and service part in a well ordered household bears to the life of the family.

And, national economics is merely household economics expanded.

#### **"Society" a Machine.**

This is not the place for expounding at length my social philosophy. But it will suffice, as a guiding thread, to indicate that my conception of Society is the corollary of my conception of Man.

That is, I view society as a mechanical contrivance for the satisfaction of man's material needs; for the ulterior object of freeing his spiritual self. What ministers directly to his spiritual wants and his spiritual life itself, lies as clearly outside of the



social organization, as outside the machine-shop.

It is in this sense also that I hold that man does not exist for society (as certain ardent social reformers would have us imagine), but society for man.

Within this frame, society resolves itself, structurally and functionally, into Production, Distribution, and Direction.

### **Production.**

Under the term Production or Productive Group is implied that part of the community which skillfully deals with nature's forces and materials; which familiarizes itself with all matters relating to the physical environment of the human aggregation. Its function is to extract, produce and arrange all things and physical conditions desirable and necessary to the well-being of the organization.

### **Skillful-Strong.**

Its membership is characterized by skill and strength, by curiosity rationalized into desire to know, and by a beaver-like urge—the instinct to make.

This group is not the representative of the community, nor is its function that of guardian, custodian, organizer, supervisor, or unifier of the composite group, nor has it rightly any of these functions. This Productive Group is the transforming element of the Social Machine.

### **"Labor."**

The Labor Element we find in practice also assumes the functions of the Directive and Distributive Groups in many ways and details. And attempting to perform these functions so foreign to its character, specialized aptitude, and economic trait, it does much harm and adds misdirected energy to existing confusion.

Taking into consideration, however, the history of this group—its age-long grinding between the upper and nether millstones of Cunning-Strong and Tricksy-Cunning—the wonder is, not that the results are as they are, but rather that this group still persists in its efforts to perform any of its rightful functions, and that it has not

long ago by the misdirection of its energy wrecked the whole structure; as it has often, seemingly, been on the ragged edge of doing. Were it not for its ineradicable instinctive urge, this doubtless would have been the result.

It is not without significance that the Distributive Group is satisfied with present conventions and desperately fears change, while the Productive Group is fiercely dissatisfied, and welcomes any change.

### **"Efficiency."**

"Production" has been of late very much to the fore in the public prints. The whole civilized world, our own country included, we are told, is not producing enough. Production, we are told, must be increased by greater industry and "efficiency."

As an inventor, that is one engaged in devising ways and means for doing something in a new and better way, I may be credited with having a sufficiently high regard for efficiency. Yet I own that, as currently conceived and employed, "efficiency" is my pet aversion. Nothing provokes me to more laughter or anger.

A notion of efficiency that focuses on the product, instead of the producer, misses the point completely. Such "efficiency" is really (humanly and socially) inefficiency.

Therefore, when I outline the task of social reconstruction as an appropriate organization of production, distribution, and direction, there are to be constantly held in mind and applied the ultimate criteria: a free unfolding of the spirit, a free manhood, a free nation.

### **Distribution.**

Under the term Distribution or Distributive Group are implied those individuals whose function in the social organization is to keep tally and effect the distribution of products and wealth equitably and impartially to all the individuals of all the groups in accordance with their effectiveness and the best interests of the community at large.

A truly magnificent function!

### **Capitalist.**

The "Capitalist Element" in practice, as the "Money Power" or "the

Interests", interferes most energetically and unjustifiably in matters wholly outside its sphere.

It has, in fact, assumed, through its taxing power, the functions of "Government" and control over the life and activities of every individual in the community. It has missed its way and is more distorted (if such be possible) than either of the other groups. To it is attributable in greater measure the social disturbance and confusion at present existing.

This group is characterized by an economic trait due to its (Tricksy-Cunning) origin—its members have an inherent parasitic tendency and a bee-like hoarding urge—the instinct to take.

### **Tally.**

This group is not the community's representative any more than is the Productive group; it is not the guardian or unifier; nor has it any of the functions of government, though it has assumed many of them. Neither does it deal with nature's forces or materials; it has no concern with physical environment or natural resources; it does not extract or produce things from nature's stores; it does not make, produce, or create wealth; its functions are neither governmental nor productive in any sense.

It is simply the bookkeeper, the clerk, of the community—the recording or tabulating element of the social machine.

### **Tricksy-Cunning.**

And yet it has arranged conventions of distribution for its own exclusive benefit.

It has appointed itself an unofficial and irresponsible custodian of the community's wealth in process of distribution. Out of the community's wealth flowing through its channels, it pays itself such wages as it deems its due for performing these services and functions. In addition to this, it retains possession of various forms of conventional increment accruing to the flowing wealth during the distributive process. These increments are deemed, by tacit acceptance of conventions made by the Distributive Group, to be its property. So this ac-

quisitive group acts as distributive agent for producer and the community, and custodian of the products, while at the same time it is active as an untrammelled trader on its own behalf in and with the community's wealth.

### **Direction.**

By the terms Direction or Directive Group is implied that part of the nation which neither produces nor distributes, but represents the whole composite group, the community.

It is that part which, as representative, is guardian, supervisor, and unifier. Its function is to facilitate the correct working of all the ramifying parts of the other elements, so as to bring about harmonious co-action of the entire social organization. It is the "governor" or strain and speed equalizer of the social machine.

### **Government.**

The "Government", in practice, exercises all these social functions inextricably tangled up with the productive and distributive elements in most of their details.

Government makes, manufactures, and exploits; it keeps tally of products and distributes them more or less ineffectively; and while remaining Government in name, it performs all these other functions to such an extent that it is difficult to determine which most definitely characterizes it in reality.

This confusion of function seems to be the logical outcome of the (Cunning-Strong) genesis of the group, with its inherent lust for power and dominion—the instinct to control.

### **Social Mechanic's Task.**

What then is the task of Man, the Social Mechanic?

Primarily, it is to extricate the basic three-fold elements of the social mechanism from the present confusion and distortion; and, in the light of and under the guidance of Science, so to organize these fundamental functions: Production, Distribution, and Direction, that they will serve the social purpose, the national objective.

### What the Trouble Is.

As it stands now, the Social Machine is a product of nature-made conditions, and not a construction of self-conscious human intelligence directed to the accomplishment of a predetermined human purpose.

Man has never attempted to organize his Social Machinery to accomplish a socially unified object. And Nature does not stop, simply because man acts like a fool. Nature truly abhors a vacuum—especially a vacuity of intelligence.

Man has tinkered with many social details—he has never tackled the Social Problem!

That is the whole trouble with the Social Machine.

### Social Problem

The situation is not unlike that of a machine-shop in which a lot of mentally deranged mechanics would find themselves while gradually and unequally convalescing toward rationality.

They find the engine and machinery (Nature) all running smoothly, but also they find themselves (with more or less bewilderment) individually and in bunches, marvelously and solemnly busy doing, with great skill, all manner of grotesque stunts: stoking the furnaces with their women and children, feeding their young men to the ponderous grinding and crushing machines; tirelessly dumping the most valued and useful products of their bodies, brains, and skill, to the smashing "dead-falls" and scrapping "go-devils", to be crushed to human slimes and refuse; and in a multitude of other ways ingeniously employing their (Nature-made) facilities and capabilities to produce all kinds of silly outcomes—unlikable to their awakening intelligence.

The condition thus disclosed they call their "Social Problem".

### Man Is Free.

Man has a living Godlike soul which is free. As a "person"—a spiritual entity—a Man is not a machine, is not subject to control by any power in the Universe except himself, and except in so far as—by an

exercise of his freedom—he voluntarily submits.

In so far as he does submit to force or irrational control, he becomes a mere product—a machine; he contracts his own soul and diminishes that transcendent quality of Godship which makes him a Man—his Freedom.

### A Purposive Social Machine.

I firmly believe that Man is, and the Universe is, so constituted that Human Intelligence can construct a Rational Social Machine; that if Man earnestly desires and has the courage seriously to undertake the task, he can make an infinitely more smooth-running, humanly efficient, and humanly purposive arrangement than the humanly objectless, inhumanly cruel, and incredibly wasteful Stone Age animalistic abortion to which he now submits—that Man can make a Social Machine worthy of Man, the World Mechanic.

### Human Intelligence or Animal Instincts?

"Nature", while on one hand seemingly reckless of "waste", is on the other obviously economical—structures, functions, and "gifts" not used, atrophy and disappear.

If then Man, in social relation, fails to use his "gifts", these will atrophy—be recalled. And Man's social development will run not in accord with his intelligence, but in accord with his animal instincts, dominated by the most basic of all, the anti-social (individual) self-preservation instinct—dog-cat-dog—jungle law.

### Science a Fulcrum.

It may seem that I have made of the existing social disorder an arraignment of Man's competence. I have charged him with folly, with failure to use his greatest gifts: reason and freedom.

Perhaps he can bring forward extenuations. Perhaps the time had not come—till now.

Perhaps there has been neither lack of human intelligence nor lack of willingness to use it. Perhaps he really could not use it, did not know how.

For one thing he lacked, which has come only in our own day: Experimental Science.

Science is a firm fulcrum for the lever of thought.

It is a fulcrum securely resting upon the eternal facts and laws of nature.

It is a fulcrum that rests upon phenomenal truth, which rests upon Nature's immanent Essential Truth that makes for universal right-cousness—mechanistic validity, personal worth, social right.

### **Technocracy.**

The philosophers and thinkers of the past lacked that fulcrum. At the best, they could be only good guessers. There is no lack of intelligence or high spirituality in Plato's "Republic", in More's "Utopia", and in their many followers.

But they all lacked, and all they

Fernwald, Berkeley, California.  
November 21, 1920.

lacked was, the firm fulcrum of Science.

This we now possess.

Now only has Technocracy become a realizable ideal.

This transcendent acquisition and necessary instrumentality—Science—is now ours to freely use or freely abuse—abuse to our irrecoverable hurt or utilize for our ever increasing and true prosperity.

This is our signal acquisition as compared with the past, our significant point of progress. And by its aid (if we choose) we (socially still in the pre-scientific period) may at last achieve also social progress.

And thus, by the means of nationally organized Science, we may become the first real nation, a truly united people with a worth-while national objective—a true Industrial Democracy—an intelligently purposeful TECHNOCRACY.

CAN MODERN MECHANIZED SOCIETY SAFELY RELY  
UPON TRADITIONAL ECONOMIC CUSTOMS?

# Social Universals

## THE INDIVIDUAL.

The main function of society is to oppose its combined effectiveness to every natural and artificial condition which tends to hamper the freedom of the individual in so far as the acts of the individual are consistent with the community objective.

## SUSTENANCE.

The products of effort are the results of life energy expressing itself through an individual upon his environment to the end that this individual may and shall express more individual life. Ownership of products, therefore, is as essentially inherent in the producing individual as are the faculties from which the products flow; thus products are, in right and in reason, inalienable from the producing individual either by himself or by others—except for their equivalent.

## MUTUALITY.

Equal liberty is the natural right of every person to the end that purposefulness may be expressed and function freely, limited only by perfect mutuality.

## INCREASE.

The women are the natural wards of the community, for its life and well-being are inseparable from theirs. By right of her womanhood's natural function, every woman is therefore entitled to maintenance and protection as a first charge upon the community resources. Realized motherhood places the community under obligation proportional to the benefit accruing to it. In this benefit the mother is, in equity, entitled to participate directly.



## **FAMILY.**

As the social and the true political unit, the family (as a unified group) is entitled effectively to voice its unified objectives, and to be represented in the conduct of all community affairs. (Male- and female-suffrage tends to engender sex antagonism.) Society starts with the union of the sexes; social functioning should start there also: family suffrage—one family, one vote.

## **PROGRESS.**

The community's most valuable and vital asset are the children, therefore self-preservation makes it imperative that the highest intelligence and unremitting effort be expended upon their preparation for carrying forward the national objective.

## **OPPORTUNITY.**

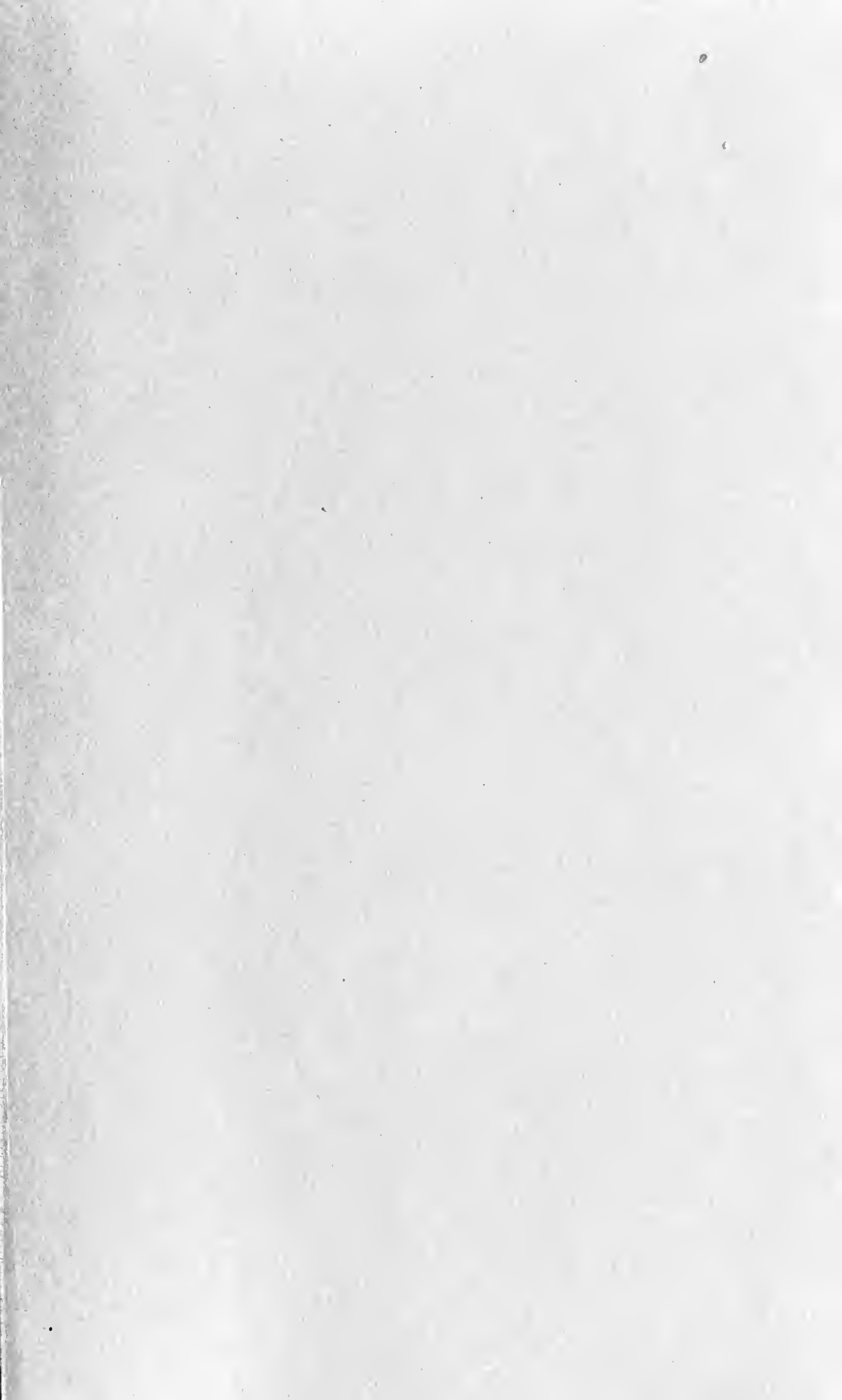
Every individual is entitled to equal opportunity (i. e. without social or economic handicap), to the end that self-expression may have fullest scope and the individual thus be enabled to reach his highest effectiveness for self-realization and for the welfare of the community.

## **PROSPERITY.**

Nature's resources are its gifts to all; they are man's inalienable environment; they are his common heritage and his common birthright.

## **INHERITANCE.**

As it is only by and through the organization of the community that the individual can socially function, it is inherently right and reasonable that the surplus product of that functioning should accrue to the community at his death.





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